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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,261	01/23/2004	Chun Fu Wu	BHT-3117-181	5531

7590 08/19/2004

TROXELL LAW OFFICE PLLC  
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5205 LEESBURG PIKE  
FALLS CHURCH, VA 22041

EXAMINER
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SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/762,261

Applicant(s)

WU, CHUN FU

Examiner

Jeffrey Sharp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/29/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of Claims***

- [1] Claims 1-4 are pending.

### ***Specification***

- [2] The disclosure is objected to because of the following informalities:

Page 3 Line 2 reads "cross-sectional view", when Figure 2 appears to be a frontal view.

Page 2 Line 13 reads "workpiece" instead of "workpieces".

Page 5 Line 2 reference character should read "(P)" not "P".

Page 5 Line 21 reads "combined" instead of "combine".

Page 4 Line 2 should state "by coating with adhesives" instead of "by adhesives" to enable the limitation "coated with adhesives" in Claim 1 Line 11.

Appropriate correction is required.

### ***Drawings***

- [3] The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "111" has been used to designate both "nail" and "nail head" in Figure 1. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing

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on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

[4] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[5] Claim 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Sutt, Jr US-5,865,585 in view of Leistner US-5,482,419.

Sutt Jr. teaches:

"nail heads (70) of a nail row (100) comprising a plurality of T-shaped nails (30) connected together alongside, each said nail formed with a nail head (70) and a nail shank (60), the distance between the front (72) and the rear (73) side of said nail head (70) being a little larger than the thickness of said nail shank (60), said nail head having its topside (71) formed with a flat striking surface, said flat striking surface having its left (64) and right (65) side respectively extending straight downward to the lowermost end of said nail shank (96) and forming a connecting portion (64 & 65), said nails respectively having said connecting portions coated with adhesives (Col 7 Line 44, Col 3 Line 22) and connected together to make up said nail row (100)"

as described in the instant claim 1. See Figure 1 below.

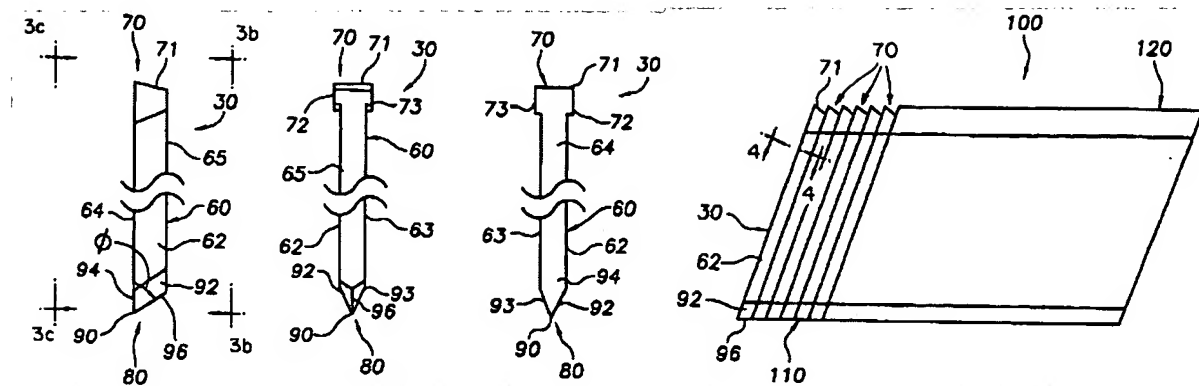


Figure 1. Sutt Jr. US-5,865,585

Sutt Jr. does not mention symmetrical oblique insert members respectively formed under the protruding portion of the front and rear side of said nail head.

Leistner teaches:

“symmetrical oblique insert members (24, 22) respectively formed under the protruding portion of the front (near 28) and the rear (near 26) side of said nail head, each said oblique insert member composed of a horizontal plane (28, 26) and an inclined plane (30) connected with each other, said horizontal plane and said inclined plane having their lengths preset in proper proportion, said inclined plane (30) of oblique insert member (24, 22) forming an acute angle (Col 4 Line 17) to the vertical side of said nail head to make up a sharp nailing portion: and, said horizontal plane (28, 26) of said oblique insert member parallel to said flat striking portion (Phantom Line), a preset height formed between said horizontal plane and said flat striking surface, said preset height forming a thickness strong enough to resist striking (Col 1 Lines 19 and 21), said sharp nailing portion of said oblique insert member enabling said nail head of said nail to be smoothly nailed in a workpiece, said horizontal plane and said inclined plane combined with said workpiece by mutual engagement of different levels, enhancing their combination strength (Col 4 Lines 26-29)”

as described in the instant claim 1. See Figure 2 below.

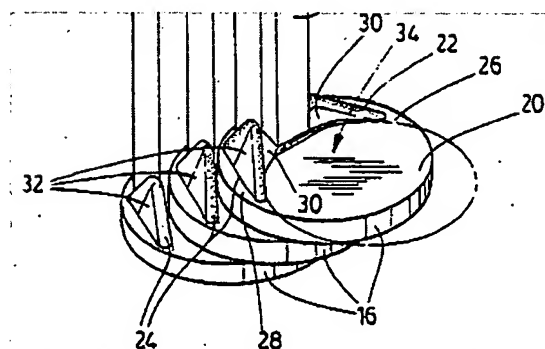


Figure 2. Leistner US-5,482,419

At the time of invention, it would have been obvious to one ordinarily skilled in the art, to modify the nail heads in the nail row taught by Sutt Jr., to comprise the oblique insert members taught by Leistner, in order to enhance the combined strength of those members with a workpiece, and to allow the plane under the nail head to help strengthen the combination of workpieces as disclosed in the instant specification (Page 2 Lines 11-13).

[6] As for claim 2, Leistner teaches (in Col 4 Lines 57-61) that the oblique insert members (24) “are provided on the lower surfaces 226, 228 respectively...[and] extend across and may cover the entire surfaces 226, 228 around the surface 220.” See Figure 3 below.

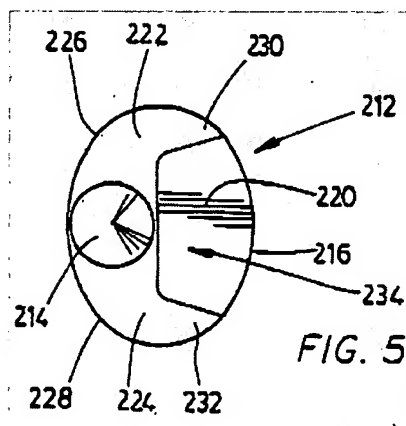


Figure 3. Leistner US-5,482,419

Therefore, Leistner discloses a variety of configurations with regard to the horizontal (28, 26) and oblique (30) plane lengths of the oblique insert members (24), but does not disclose expressly the proportion in length of the horizontal (28 & 26) and inclined (30) planes as being two to one.

At the time of invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the oblique members taught by Leistner so that both horizontal (28 & 26) and inclined (30) planes of said members would have a proportion in length

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of two to one, because the applicant has not disclosed that a proportion in length of two to one solves any stated problem, is used for a particular purpose, or provides any particular advantage. Further, Leistner would have been expected by those of ordinary skill in the art to perform equally well with either a proportion in length of two to one, or any other proportion thereof, because he discloses the possibility of different oblique member sizes as discussed above.

[7] Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Sutt, Jr. US-5,865,585 in view of Leistner US-5,482,419 as discussed above, in further view of Rogers US-161,280.

Sutt Jr. and Leistner teach all of the claimed limitations stated above, but fail to disclose a plurality of oblique recessed lines on the front and rear sides of the nail shank, and fail to disclose the possibility of said oblique recessed lines to be obliquely connected with one another.

Rogers shows a strip of nails with a plurality of oblique recessed lines on both the front and rear sides of each nail shank obliquely connected with one another. See Figure 4 below.

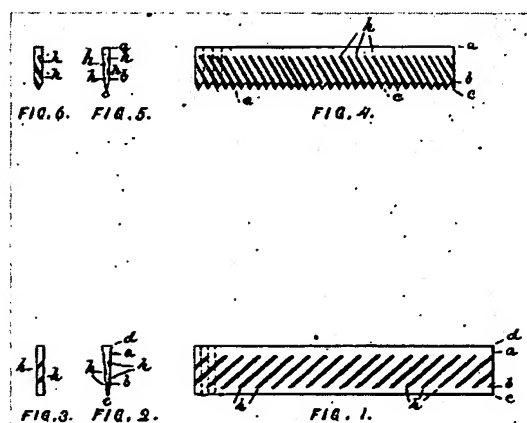


Figure 4. Rogers US-161,280

At the time of invention, it would have been obvious to one ordinarily skilled in the art to modify the strip of nails taught by Sutt Jr. v Leistner to include a plurality of oblique recessed lines on both the front and rear sides of the nail shank as taught by Rogers, for purposes of better securing two workpieces together.

### *Claim Objections*

[8] Claim 1 is objected to, because it recites the limitation "the vertical side" on Line 22. There is insufficient antecedent basis for this limitation in the claim, because a "vertical side" is not mentioned at any prior point in the claim.

Claim 1 is objected to for using non-conventional language "composed of" on Line 16. A more preferable term is "comprising". It is to be made of record that for the purposes of this examination, "composed of" has been interpreted as open.

Claim 1 is objected to for omitted punctuation. There should be a colon after the term "comprising" on Line 1.

Claim 1 is objected to, because the preamble recites "The nail heads of a nail row" and should read "a nail row" on Line 1. There is a lack of antecedent basis for "The nail heads".

Claim 1 is objected to, because it recites "Characterized by" after a colon on Lines 12 and 13. The words "Characterized by" should be omitted, and the colon on Line 12 should be replaced with a semi-colon.

Claim 1 is objected to, because of improper capitalization at the beginning of Lines 13 and 23.



Claim 1 is objected to, because of improper punctuation. A colon exists at the end of Line 22, and should be replaced with a semi-colon.

[9] Claims 1 and 2 are objected to, because it is not understood how “planes” can have a length, as they are inherently indefinite. It is suggested that the terms “horizontal plane portion” and “inclined plane portion” be used.

Claims 2-4 are objected to, because they each recite “The nail heads of a nail row” and should read “The nail row” on Line 1.

Claim 2 is objected to, because it neglects to clearly define “length” in Line 2.

Claim 2 is objected to, because the word “and” in Line 3 should be “to” in order to be consistent with convention.

Claim 4 is objected to, because it recites the limitation “said oblique insert lines”. There is insufficient antecedent basis for this limitation in the claim, because “oblique insert lines” is not mentioned in independent claim 1 or in any other part of Claim 4.

### ***Conclusion***

[10] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-2,428,259 Anstett teaches a similar row of nails.

US-2,122,814 Hansen teaches a plurality of oblique recesses on both sides of shank.

US-3,828,924 Perkins teaches a plurality of recessed lines on the shank.

US-4,002,098 Colechia teaches symmetrical non-oblique insert members.

US-5,056,976 Sygnator et al. teach an oblique recess parallel to the inclination of a row of nails.


US Pub 2003/0180120A1 Wu teaches a similar row of nails.

[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (703) 305-2693. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS

  
ROBERT J. SANDY  
PRIMARY EXAMINER